

# Comparisons of Job Characteristics

**Focus Occupation:** [First-Line Supervisors of Production and Operating Workers \(51-1011\)](#)  
**Associated Occupation:** [Petroleum Engineers \(17-2171\)](#)

[Compare Knowledge](#)  
[Compare Skills](#)  
[Compare Abilities](#)  
[Compare Detailed Work Activities](#)  
[Compare Tools and Technologies](#)

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 31

**Focus Occupation:** First-Line Supervisors of Production and Operating Workers (51-1011)  
**Associated Occupation:** Petroleum Engineers (17-2171)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Engineering and Technology	5.7	22.0	8.3	<<	Extensive education and/or training may be required
Mathematics	9.2	17.4	10.6	<<	Extensive education and/or training may be required
Physics	4.3	15.3	3.6	<<	Extensive education and/or training may be required
Computers and Electronics	8.4	14.2	7.9	<<	Extensive education and/or training may be required
Administration and Management	8.4	12.9	14.0	0	Current knowledge level may be sufficient
Chemistry	4.8	11.6	5.0	<<	Extensive education and/or training may be required
Economics and Accounting	4.4	11.2	4.2	<<	Extensive education and/or training may be required
Design	5.2	9.7	6.5	<<	Extensive education and/or training may be required
Geography	3.9	9.4	1.6	<<	Extensive education and/or training may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 79

**Focus Occupation:** First-Line Supervisors of Production and Operating Workers (51-1011)  
**Associated Occupation:** Petroleum Engineers (17-2171)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation
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Reading Comprehension	10.7	15.5	11.5	<<	Extensive development of skills in this area may be required
Complex Problem Solving	9.1	13.5	10.7	<	A higher skill level may be required
Writing	9.2	13.5	10.3	<<	Extensive development of skills in this area may be required
Monitoring	9.9	12.8	10.6	<	A higher skill level may be required
Coordination	9.1	12.0	12.0	0	Current skill level may be sufficient
Time Management	8.9	11.8	12.6	0	Current skill level may be sufficient
Systems Evaluation	6.4	11.6	8.3	<<	Extensive development of skills in this area may be required
Systems Analysis	6.5	11.5	8.5	<<	Extensive development of skills in this area may be required
Management of Personnel Resources	6.9	10.7	11.8	>	Skill level is likely sufficient
Science	4.5	10.5	3.4	<<	Extensive development of skills in this area may be required
Mathematics	6.2	10.1	5.8	<<	Extensive development of skills in this area may be required
Negotiation	6.8	9.7	9.8	0	Current skill level may be sufficient
Management of Material Resources	3.7	7.3	5.8	<	A higher skill level may be required
Management of Financial Resources	3.3	7.1	5.6	<	A higher skill level may be required
Technology Design	2.6	5.4	2.2	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 91			
Focus Occupation: First-Line Supervisors of Production and Operating Workers (51-1011) Associated Occupation: Petroleum Engineers (17-2171)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Written Comprehension	11.0	15.7	12.2	<<	Extensive improvement in abilities may be required
Written Expression	9.8	14.8	11.0	<<	Extensive improvement in abilities may be required
Inductive Reasoning	10.2	14.2	10.7	<<	Extensive improvement in abilities may be required
Problem Sensitivity	11.1	13.9	12.1	<	Some improvement in abilities may be required
Information Ordering	9.9	12.9	9.7	<<	Extensive improvement in abilities may be required
Category Flexibility	9.0	12.6	8.8	<<	Extensive improvement in abilities may be required
Mathematical Reasoning	6.3	11.7	7.1	<<	Extensive improvement in abilities may be required
Fluency of Ideas	7.6	11.1	9.1	<	Some improvement in abilities may be required
Time Sharing	6.6	8.5	7.1	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Activities that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 50

**Focus Occupation: First-Line Supervisors of Production and Operating Workers (51-1011)**  
**Associated Occupation: Petroleum Engineers (17-2171)**

Work Activities	Exclusivity of Activity
Assign work to staff or employees	30
Communicate technical information	4
Direct and coordinate activities of workers or staff	3
Prepare reports	8
Read blueprints	10
Read technical drawings	7

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 86

**Focus Occupation: First-Line Supervisors of Production and Operating Workers (51-1011)**  
**Associated Occupation: Petroleum Engineers (17-2171)**

Tools and Technologies	Exclusivity
Business function specific software	1
Computer data input devices	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Finance accounting and enterprise resource planning ERP software	2
Information exchange software	1
Network applications software	1

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.